

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1-67. Canceled.

68. (Previously Presented) A prosthesis comprising:

a first graft comprising a proximal portion, a first distal portion, and a second distal portion;

said proximal portion defining a lumen and adapted to be disposed within a blood vessel in juxtaposition with a bifurcation;

said first distal portion defining a lumen and adapted to allow blood to flow from said proximal portion into a first branched blood vessel;

said second distal portion defining a lumen and adapted to allow blood to flow from said proximal portion into a second branched vessel; and

a second graft defining a lumen and adapted to be intravascularly inserted into a lumen of said first graft to allow blood to flow through the lumen defined by said second graft; and

wherein said first distal portion has a downstream end forming a skirt.

69. (Canceled)

70. (Previously Presented) A graft for treatment of aneurysms or occlusive diseases comprising:

a primary graft body, said primary graft body having a primary graft flow lumen therethrough, said primary graft body comprising a first portion and a second portion; and

a supplemental graft body, said supplemental graft body having a secondary graft flow lumen therethrough, said supplemental graft body comprising a first end and a second end, said first end of said supplemental graft body being dockable to said second portion of said primary graft body while inside of a vessel to define a single flow lumen which transfers substantially all flow between said primary graft flow lumen and said secondary graft flow lumen.

71. (Previously Presented) The graft as defined in claim 70, wherein said primary graft body is circumferentially reinforced at locations along its length by a plurality of separate spaced apart wires.

72. (Previously Presented) The graft as defined in claim 71, wherein each of said separate spaced apart wires comprises two opposing ends, said ends being joined together on the outside surface of said primary graft body.

73. (Previously Presented) The graft as defined in claim 71, wherein at least one of the reinforcement wires is attached to said primary graft body via sutures.

74. (Previously Presented) The graft as defined in claim 71, wherein at least one of the reinforcement wires is attached to said primary graft body.

75. (Previously Presented) The graft as defined in claim 70, wherein said supplemental graft body is circumferentially reinforced at locations along its length by a plurality of separate, spaced apart wires.

76. (Previously Presented) The graft as defined in claim 75, wherein each of said separate wires comprise two opposing ends, said ends being joined together on the outside surface of said supplemental graft body.

77. (Previously Presented) The graft as defined in claim 75, wherein at least one of the reinforcement wires is attached to said supplemental graft body via sutures.

78. (Previously Presented) The graft as defined in claim 75, wherein at least one of the reinforcement wires is attached to said supplemental graft body.

79. (Previously Presented) The graft as defined in claim 71, wherein at least one of the reinforcement wires has a different amplitude than the next adjacent wire.

80. (Previously Presented) The graft as defined in claim 75, wherein at least one of the reinforcement wires has a different amplitude than the next adjacent wire.

81. (Previously Presented) The graft as defined in claim 71, wherein one of the reinforcement wires is located at one end of the primary graft body and

has alternate crests or apices extending beyond said one end of the primary graft body.

82-83. (Canceled)

84. (Previously Presented) The graft as defined in claim 70, wherein said primary graft body and said supplemental graft body are formed of a thin biocompatible material.

85-92. Canceled.

93. (Previously Presented) A graft comprising:

a first graft body, said first graft body having a first graft body inlet end and a first graft body outlet end to define a flow passage therethrough; and

a second graft body, said second graft body having a second graft body inlet end and a second graft body outlet end to define a flow passage therethrough;

said second graft body inlet end being attachable in an overlapping relationship with said first graft body outlet end while inside of a vessel to define a continuous flow passage through said first graft body inlet end, said first graft body outlet end, said second graft body inlet end and said second graft body outlet end.

94. (Previously Presented) The graft of claim 93 wherein at least one of the first graft body and the second graft body is reinforced by a wire structure.

95. (Previously Presented) The graft of claim 94 wherein the wire structure is formed of a metal.

96. (Previously Presented) The graft of claim 94 wherein the wire structure is sutured to the respective graft body.

97. (Previously Presented) The graft of claim 94 wherein at least one of the first graft body and the second graft body is a multi-layered graft body and the wire structure is sandwiched between layers of said multi-layered graft body.

98. (Previously Presented) The graft of claim 94 wherein at least a portion of one of the first graft body and the second graft body is made of PTFE.

99. (Previously Presented) The graft of claim 94 wherein the wire structure is disposed at least in part on an outside surface of the respective graft body.

100. (Previously Presented) The graft of claim 94 wherein the wire structure is disposed substantially on an inside surface of the respective graft body.

101. (Previously Presented) The graft of claim 94 wherein the wire structure is interwoven with the surface of the respective graft body.

102. (Previously Presented) The graft of claim 94 wherein the wire structure is X-ray detectable.

103. (Previously Presented) The graft of claim 93 wherein the second graft body is frusto-conical in shape.

104. (Previously Presented) The graft of claim 93 wherein the second graft body is substantially cylindrical.

105. (Previously Presented) The graft of claim 93 wherein one of the first graft body and the second graft body comprises a skirt portion.

106. (Previously Presented) The graft of claim 105 wherein said skirt portion is about 18 mm in length.

107. (Previously Presented) The graft for treatment of aneurysms or occlusive diseases comprising:

a first graft body, said first graft body having an inlet end and an outlet end to define a first flow passage therethrough; and

a second graft body, said second graft body having an inlet end and an outlet end to define a second flow passage therethrough;

said inlet end of said second graft body being attachable in an overlapping relationship with said outlet end of said first graft body while inside of a vessel to define a continuous flow passage between said inlet end and said outlet end of said first graft body and said inlet end and said outlet end of said second graft body; and

wherein at least one of the inlet ends and the outlet ends is reinforced with a wire member which has a plurality of apices extending beyond at least a portion of the corresponding end.

108. (Previously Presented) A graft comprising:

a first graft body, said first graft body having an inlet end and an outlet end to define a first flow passage therethrough; and

a second graft body, said second graft body having an inlet end and an outlet end to define a second flow passage therethrough;

said inlet end of said second graft body being attachable in an overlapping relationship with said outlet end of said first graft body while inside of a vessel to define a continuous flow passage through said first flow passage and said second flow passage; and

wherein the graft is adapted to be placed in a lumen of a first vessel that intersects with a second vessel; and wherein at least one of the said inlet end of said first graft body and said outlet end of said second graft body that is adjacent to a junction between the first vessel and the second vessel is reinforced with a wire member which has a plurality of apices extending beyond at least a portion of a respective end adjacent to said junction.

109. (Currently Amended) A graft for treatment of aneurysms or occlusive diseases comprising:

a first graft body, said first graft body having an inlet end and an outlet end to define a flow passage therethrough; and

a second graft body, said second graft body having an inlet end and an outlet end to define a flow passage therethrough;

said inlet end of said second graft body being attachable in an overlapping relationship with said outlet end of said first graft body while inside of a vessel to define a continuous flow passage between said inlet end and said outlet end of said first graft body and said inlet end and said outlet end of said second graft body;

wherein at least one of the first graft body and the second graft body is circumferentially reinforced by a metal wire structure.

110. (Previously Presented) The graft of claim 109 wherein the metal wire structure comprises at least one wireform.

111. (Previously Presented) The graft of claim 110 wherein said at least one wireform has closed sinusoidal shape.

112. (Previously Presented) The graft of claim 109 wherein the metal wire structure comprises a plurality of wireforms.

113-128. (Canceled)

129. (New) The graft for treatment of aneurysms or occlusive diseases as claimed in claim 109, wherein a portion of at least one of said first graft body and said second graft body and said metal wire structure has a different radiopacity, said portion of different radiopacity facilitating proper alignment of said first graft body and said second graft body with respect to one another during said engagement.

130. (New) The graft for treatment of aneurysms or occlusive diseases as claimed in claim 109 further comprising:

radiographic indicia defined on at least one of said first graft body and said second graft body and said metal wire structure and having different radiopacity from said at least one of said first graft body and said second graft body and said metal wire structure, wherein the composite radiographic image of said radiographic indicia varies with the rotational orientation of said at least one of said first graft body and said second graft body and said metal wire structure in a body lumen;

wherein the rotational orientation of said at least one of said first graft body and said second graft body and said metal wire structure in the body lumen is indicated by said radiographic image for optional adjustment of the rotational orientation.

131. (New) A system for introducing the graft for treatment of aneurysms or occlusive diseases of claim 109 into a vessel to define a continuous lumen, said system comprising:

a first introducer for introducing said first graft body of said graft for treatment of aneurysms or occlusive diseases into the vessel, said first graft body having a portion adapted for connection to said second graft body; and

a second introducer for (a) introducing said second graft body of said graft for treatment of aneurysms or occlusive diseases in a radially compressed state into the vessel and into said portion of said first graft body, and (b) deploying

said second graft body to connect to said portion of said first graft body and to define said continuous lumen through said first graft body and said second graft body.

132. (New) The graft for treatment of aneurysms or occlusive diseases as claimed in claim 109, one of said first graft body and said second graft body being configured for placement at an anatomical bifurcation of a vessel into two branched vessels, one of said first graft body and said second graft body being at least partially supported by a bifurcated stent member, defining two lumens, at least one of which is configured to be disposed entirely within said vessel and is adapted to mate with the other of said first graft body and said second graft body configured to extend into one of the two branched vessels.

133. (New) The graft for treatment of aneurysms or occlusive diseases as claimed in claim 109, said graft comprising a male engaging portion on a selected one of said first graft body and said second graft body, and a female portion on another one of said first graft body and said second graft body, said male engaging portion being configured to be positioned at least partially within said female portion for inter-engagement between the outer surface of said male engaging portion and the inner surface of said female portion to resist longitudinal movement to prevent separation of said first graft body and said second graft body in service, each of said male engaging portion and said female portion comprising a stent and at least one of said first graft body and said second graft body comprising a graft layer attached to said stent, said graft layer being configured to be interposed between said male engaging portion and said female portion to form a substantially fluid-tight seal upon assembly.